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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2004-NM-28-AD; Amendment 39-13489; AD 2004-04-08]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 777-200 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 777-200 series airplanes. This action requires a revision to the Airplane Flight Manual (AFM) to advise the flightcrew that Category IIIB autoland operations are prohibited and to warn the flightcrew of the potential for reversion of the primary flight control system to direct mode during takeoff or landing and its associated airplane effects. This AD also requires installation of a placard in the flight deck. This action also provides an optional terminating action for the AFM revision and placard installation. This action is necessary to prevent the possibility of the airplane departing the runway during Category IIIB autoland operations due to autopilot disconnect in low visibility weather conditions, and to warn the flightcrew of the potential for autopilot disconnect or unscheduled speed brake retraction during any landing, which could result in a departure from the runway. This action is intended to address the identified unsafe conditions.

DATES: Effective February 26, 2004.

Comments for inclusion in the Rules Docket must be received on or before April 26, 2004.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2004-NM-28-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2004-NM-28-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 or 2000 or ASCII text.

Information pertaining to this amendment may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Gregg Nesemeier, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6479; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: The FAA has received a report indicating that, during a test flight performed by the airplane manufacturer, a single primary flight computer (PFC) reset on a Boeing Model 777-300ER series airplane. The primary flight control system (PFCS) includes three PFCs, called channels. As a result of analyzing the data from the test flight, the airplane manufacturer was able to reproduce single, dual, and triple channel resets during lab testing of takeoff and landing scenarios. A triple channel reset forces the PFCS from normal mode into direct mode. Reversion to direct mode during autoland disconnects the autopilot. During Category IIIB autoland operations, loss of automatic rollout control in low visibility weather conditions could result in the airplane departing from the runway.

Additionally, if the PFCS reverts to direct mode after automatic speed brake deployment during any landing, the speed brakes will retract. If this occurs, the flightcrew must manually deploy the speed brakes. Unscheduled speed brake retraction during landing could result in a runway overrun, particularly if stopping distance is critical.

The PFC hardware and software configuration on Model 777-300ER series airplanes are identical to those on the affected Model 777-200 series airplanes (PFC hardware, part number (P/N) S251W700-103, and software, P/N 2769-PFC-900-00). Therefore, the affected Model 777-200 series airplanes may be subject to the same unsafe conditions. Model 777-300ER series airplanes are not yet type certificated; therefore, these airplanes are not subject to AD rulemaking. The airplane manufacturer is planning to revise the software of the PFCs on these airplanes before certification.

Explanation of Relevant Service Information

The FAA has reviewed TASKS 27-02-01-400-803, 27-02-01-000-801, and 27-02-01-400-802 of Chapter 27-02-01 of Boeing 777 Airplane Maintenance Manual (AMM), Document Number D633W101. The AMM describes procedures for removing all three existing PFCs having hardware P/N S251W700-103 and software P/N 2769-PFC-900-00, and installing serviceable PFCs having hardware P/N S251W700-102 and software P/N 2763-PFC-740-00. Accomplishment of the actions specified in the AMM is intended to adequately address the identified unsafe conditions.

Explanation of the Requirements of the Rule

Since unsafe conditions have been identified that are likely to exist or develop on other airplanes of the same type design that may be registered in the United States at some time in the future, this AD requires a revision to the Airplane Flight Manual (AFM) to (1) advise the flightcrew that Category IIIB autoland operations are prohibited and (2) warn the flightcrew of the potential for reversion of the PFCS to direct mode during takeoff or landing and its associated airplane effects. This AD also requires installation of a placard in the flight deck. This AD also provides an optional terminating action for the AFM revision and placard installation. The optional terminating action is required to be accomplished in accordance with the AMM described previously.

Interim Action

The AFM revision and placard required by this AD may be removed upon installation of PFC hardware, P/N S251W700-102, and software, P/N 2763-PFC-740-00, in all three PFCs. This PFC hardware/software configuration has been previously certified for Model 777 series airplanes. Boeing is currently developing new PFC hardware/software configurations, but we have not yet certified them. We may consider further rulemaking once these new hardware/software configurations have been certified.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.

For each issue, state what specific change to the AD is being requested.

Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2004-NM-28-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct unsafe conditions in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-04-08 Boeing: Amendment 39-13489. Docket 2004-NM-28-AD.

Applicability: Model 777-200 series airplanes, variable numbers WC381 through WC385 inclusive, WC446, and WC447; certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

To prevent the possibility of the airplane departing the runway during Category IIIB autoland operations due to autopilot disconnect in low visibility weather conditions, and to warn the flightcrew of the potential for autopilot disconnect or unscheduled speed brake retraction during any landing, which could result in a departure from the runway; accomplish the following:

Revision of the Airplane Flight Manual (AFM) and Installation of a Placard

(a) Within 1 day after the effective date of this AD, accomplish the actions specified in paragraphs (a)(1) and (a)(2) of this AD.

(1) Revise the Limitations Section of the AFM to include the following statement (this may be accomplished by inserting a copy of this AD into the AFM):

"CERTIFICATE LIMITATIONS

CAT IIIB autoland prohibited.

WARNING

The PFCS may revert to direct mode during takeoff or landing. If reversion to direct mode occurs during autoland, the autopilot will disconnect. In this situation, the flightcrew must immediately take control of the airplane and provide manual rollout control.

WARNING

If the PFCS reverts to direct mode after the speed brakes have been deployed during landing rollout, the speed brakes will retract. If this occurs, the flightcrew must manually deploy the speed brakes to preserve stopping performance."

(2) Install a warning placard in the flight deck in the Captain's primary field of view that reads as follows:

"CAT IIIB AUTOLAND PROHIBITED."

Optional Terminating Action

(b) Remove all three existing PFCs, having hardware part number (P/N) S251W700-103 and software P/N 2769-PFC-900-00, and install serviceable PFCs having hardware P/N S251W700-102 and software P/N 2763-PFC-740-00; in accordance with TASKS 27-02-01-400-803, 27-02-01-000-801, and 27-02-01-400-802 of Chapter 27-02-01 of Boeing 777 Airplane Maintenance Manual, Document Number D633W101. After accomplishing the removal and installation, the AFM revision and placard required by paragraph (a) of this AD may be removed.

Special Flight Permit

(c) Special flight permits (14 CFR 21.197 and 21.199) are not allowed.

Alternative Methods of Compliance

(d) In accordance with 14 CFR 39.19, the Manager, Seattle Aircraft Certification Office, FAA, is authorized to approve alternative methods of compliance (AMOCs) for this AD.

Effective Date

(e) This amendment becomes effective on February 26, 2004.

Issued in Renton, Washington, on February 20, 2004.

Ali Bahrami,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04-4258 Filed 2-25-04; 8:45 am]

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